

Page 26,

Line 5, change "improvement in" to --improved--.

IN THE CLAIMS:

Please amend Claims 1 through 4, 9 through 14, 19 through 26, and 31 through 34 as follows:

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1. (Amended) An illuminator for illuminating an object [a surface to be illuminated] with a luminous flux emitted from a light source, said illuminator comprising:  
an illumination system through which the luminous flux is projected onto the object, said illumination system including at least one unit having a surface on at least a portion of which a titanium oxide film is provided [through an illumination system, wherein a titanium oxide film is provided on the surface of at least one unit constituting said illumination system].

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2. (Amended) An illuminator for illuminating an object [a surface to be illuminated] with a luminous flux emitted from a light source, said illuminator comprising:

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an illumination system through which the luminous flux is projected onto the object, said illumination system including a plurality of optical units, at least one of said plurality of optical units having a surface on at least a portion of which a titanium oxide film is provided [through an illumination system, wherein a titanium oxide film is provided in at least one region of at least one optical unit among a plurality of optical units].

3. (Amended) An illuminator for illuminating an object [a surface to be illuminated] with a luminous flux emitted from a light source, said illuminator comprising:

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an illumination system through which the luminous flux is projected onto the object, said illumination system including at least one optical unit and a supporting unit for supporting said at least one optical unit, said supporting unit having a surface on at least a portion of which a titanium oxide film is provided [through an illumination system, wherein a titanium oxide film is provided in at least one region of a supporting unit for supporting an optical unit].

4. (Amended) An illuminator according to any one of claims 1, 2, and 3, wherein the [said] luminous flux

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comprises ultraviolet light, and said titanium oxide film prevents a contaminant from adhering to and contaminating the portion of the [a] surface of the unit provided with said titanium oxide film due to [by] a photoconductive function caused by [the] absorption of the [said] ultraviolet light.

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9. (Amended) An illuminator according to claim 2, wherein said titanium oxide film is provided on a portion of the surface of [a portion of a region of] said optical unit at [in] which light passes through.

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10. (Amended) An illuminator according to any one of claims 1, 2, and 3 [to 9], wherein said titanium oxide film has a thickness ranging from 10 nm to 100 nm.

11. (Amended) An exposure apparatus for exposing a wafer with a pattern formed [illuminating a pattern] on a mask, the pattern being illuminated with a luminous flux emitted from a light source and projected through an illumination system, said exposure apparatus comprising:  
at least one unit having a surface on at least a portion of which a titanium oxide film is provided [and exposing a wafer with said pattern, wherein a titanium oxide film is provided on the surface of at least one unit].

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12. (Amended) An exposure apparatus for exposing a wafer with a pattern formed [illuminating a pattern] on a mask, the pattern being illuminated with a luminous flux emitted from a light source and projected through an illumination system, said exposure apparatus comprising:

a plurality of optical units, at least one of said plurality of optical units having a surface on at least a portion of which a titanium oxide film is provided [through an illumination system and exposing a wafer with said pattern, wherein a titanium oxide film is provided on the surface of at least one region of at least one optical unit among a plurality of optical units].

13. (Amended) An exposure apparatus for exposing a wafer with [illuminating] a pattern formed on a mask, the pattern being illuminated with a luminous flux emitted from a light source and projected through an illumination system, said exposure apparatus comprising:

at least one optical unit; and  
a supporting unit for supporting said at least one optical unit, said supporting unit having a surface on at least a portion of which a titanium oxide film is provided  
[and exposing a wafer with said pattern, wherein a titanium oxide film is provided on the surface of at least one region

of a supporting unit for supporting at least one optical unit].

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14. (Amended) An exposure apparatus according to any one of claims 11, 12, and 13, wherein the [said] luminous flux comprises ultraviolet light, and said titanium oxide film prevents a contaminant from adhering to and contaminating the portion of the [a] surface of the unit provided with said titanium oxide film due to [by] a photoconductive function caused by [the] absorption of the [said] ultraviolet light.

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19. (Amended) An exposure apparatus according to claim 12, wherein said titanium oxide film is provided on a portion of the surface of [a portion of a region of] said optical unit at [in] which light passes through.

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20. (Amended) An exposure apparatus according to any one of claims 11, 12, and 13 [to 19], wherein exposure is performed while the pattern on the [said] mask is scanned synchronously with the wafer [and said wafer are synchronously scanned].

21. (Amended) An exposure apparatus according to any one of claims 11, 12, and 13 [to 20], wherein said titanium oxide film has a thickness ranging from 10 nm to 100 nm

22. (Amended) A method for fabricating a device comprising the steps of:

emitting a luminous flux from a light source;  
projecting the luminous flux through an illumination system;

aligning the reticle with a wafer by an exposure apparatus that includes at least one unit having a surface on at least a portion of which a titanium oxide film is provided;

exposing the [a] wafer with a pattern formed on the [a] reticle by illuminating the pattern with the luminous flux emitted from the light source and projected through the illumination system, said exposing step being performed after said aligning step [after said reticle is aligned with said wafer using an exposure apparatus according to any one of claims 11 to 21]; and

developing the [said] wafer.

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23. (Amended) A projection aligner for illuminating a pattern formed on a mask with a luminous flux and exposing a wafer by projecting the pattern onto the wafer, said projection aligner comprising:

a light source for emitting a luminous flux;

an illumination system through which the luminous flux is passed, said illumination system including at least one unit; and

a projection optical system for projecting the pattern onto the wafer, said projection optical system including at least one unit,

wherein at least one unit of at least one of said illumination system and said projection optical system has a surface on at least a portion of which a titanium oxide film is provided [from a light source through an illumination system and projecting said pattern onto a wafer by a projection optical system, wherein a titanium oxide film is provided on the surface of at least one unit].

24. (Amended) A projection aligner for illuminating a pattern formed on a mask with a luminous flux and exposing a wafer by projecting the pattern onto the wafer, said projection aligner comprising:

a light source for emitting a luminous flux;

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an illumination system through which the luminous flux is passed, said illumination system including a plurality of optical units; and

a projection optical system for projecting the pattern onto the wafer, said projection optical system including a plurality of optical units,

wherein at least one of said plurality of optical units of at least one of said illumination system and said projection optical system has a surface on at least a portion of which a titanium oxide film is provided [from a light source through an illumination system and projecting said pattern onto a wafer by a projection optical system, wherein a titanium oxide film is provided on the surface of at least one region of at least one optical unit among a plurality of optical units].

25. (Amended) A projection aligner for illuminating a pattern formed on a mask with a luminous flux and exposing a wafer by projecting the pattern onto the wafer, said projection aligner comprising:

a light source for emitting a luminous flux;

an illumination system through which the luminous flux is passed, said illumination system including at least



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one optical unit and a supporting unit for supporting said at least one optical unit; and

a projection optical system for projecting the pattern onto the wafer, said projection optical system including at least one optical unit and a supporting unit for supporting said at least one optical unit,

wherein a supporting unit of at least one of said illumination system and said projection optical system has a surface on at least a portion of which a titanium oxide film is provided [from a light source through an illumination system and projecting said pattern onto a wafer by a projection optical system, wherein a titanium oxide film is provided on the surface of at least one region of a supporting unit for supporting at least one optical unit].

26. (Amended) A protection aligner according to any one of claims 23, 24, and 25, wherein the [said] luminous flux comprises ultraviolet light, and said titanium oxide film prevents a contaminant from adhering to and contaminating the portion of the [a] surface of the unit provided with said titanium oxide film due to [by] a photoconductive function caused by [the] absorption of said ultraviolet light.

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31. (Amended) A projection aligner according to claim 24, wherein said titanium oxide film is provided on a portion of the surface [of a portion of a region] of said optical unit at [in] which light passes through.

32. (Amended) A projection aligner according to any one of claims 23, 24, and 25 [to 31], wherein illumination and projection [and exposure] are performed while the [said] mask and the [said] wafer are synchronously scanned at a velocity ratio based on [in response to] imaging magnification of said projection optical system.

33. (Amended) A projection aligner according to any one of claims 23, 24 and 25 [to 32], wherein said titanium oxide film has a thickness ranging from 10 nm to 100 nm.

34. (Amended) A method for fabricating a device, said method comprising the steps of:

emitting a luminous flux from a light source;  
illuminating a pattern formed on a reticle with the  
luminous flux;  
exposing a wafer by projecting the pattern onto the  
wafer after the reticle is aligned with the wafer using a